

Figure 1

A. ctc aac cag tcc att gtc ca
B. tcc cgg ttg ctc tga gac at
C. gcc aca gtc atg ccc gtc ag
D. ctg cga tcc gac tca cca at
E. agt cct gtt ctc ttc cac
F. ctt tac tgc tgc cat ggg
G. cgc cgt tct cct gga tcc aa
H. ctg act cca gct gta tcc
I. ggt ctc cat ctc cga ttc
J. cct ggg gtg atg tgg agc
K. agt tcc aca aaa gta tcc
L. ctt tcg gct ctc ggc tgc
M. aac cag cgg ttg aag cgt

Figure 2A

- A. (T31028)
c*t*c* aac* cag t*c*c at*t gt*c* c*a
- A' . (T31029)
C*T*C* aaC* Cag T*C*C aT*T gT*C* C*a
- B. (T31030)
t*c*c* cgg t*tg c*t*c* tga ga*c* a*t
- C. (T31044)
g*c*c* aca gt*c atg c*c*c gt*c* a*g
- C' . (T31045)
g*C*C* aCa gT*C aTg C*C*C gT*C* a*g
- D. (T31049)
CT*g Cga T*C*C gaC* T*Ca C*C*a* a*t
- E. (T31054)
a*g*t* c*c*t gt*t c*t*c t*t*c* c*a*c
- E' . (T31055)
a*g*T* C*C*C* g*T*T C*T*C T*T*C* C*a*c
- F. (T31061)
C*T*T* TaC TgC* TgC* CaT* g*g*g
- G. (T31043)
C*gC* C*gT* T*C*T* C*C*T gga TC*C* a*a
- G' . (T31042)
c*gc* c*gt* t*c*t* c*c*t gga tc*c* a*

Figure 2B

H. (T31053)
C*T*g* aC*T* C*Ca gC*T gTa* T*C*c

H' . (T31052)
c*t*g* ac*t* c*ca gc*t gta* t*c*c

I. (T31057)
g*g*T* CT*C* CaT* CT*C Cga* T*T*c

I' . (T31056)
g*g*t* ct*c* cat* ct*c cga* t*t*c

J. (T31062/63)
c*c*t* ggg gtg* atg* tgg* a*g*c

K. (T31065)
a*g*T* TC*C aC*a aaa gT*a* T*C*c

K' . (T31064)
a*g*t* tc*c ac*a aaa gt*a* t*c*c

L. (T31067)
C*T*T* Tcg gC*T C*T*C ggC* T*g*c

L' (T31066)
c*t*t* tcg gc*t c*t*c ggc* t*g*c

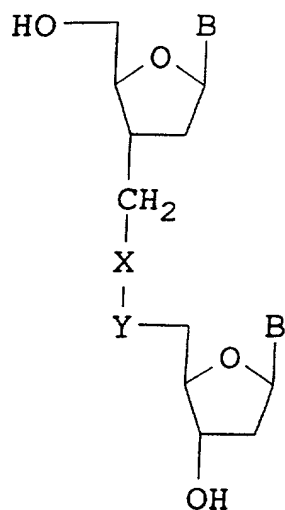
M. (T31069)
a*a*C* Cag Cgg T*Tg aag* C*g*t

M' . (T31068)
a*a*c* cag cgg t*t*g aag* c*g*t

where * = phosphorothioate
C = Propynyl dC
T = Propynyl dT

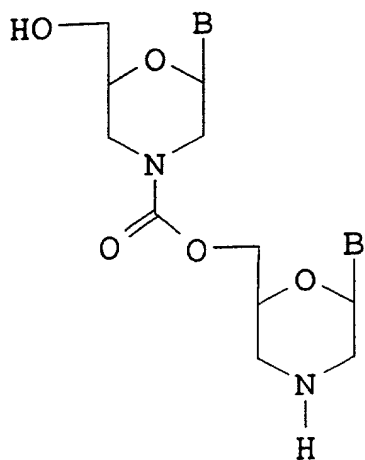
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Figure 3A



Hydroxylamine
MOMI
MMI-

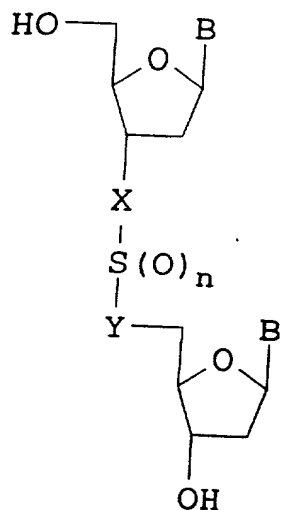
<u>X</u>	<u>Y</u>
N-H	O
O	N-CH ₃
N-CH ₃	O



Morpholino-carbamate

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Figure 3B



n = 2

Sulfate
Sulfonate
Sulfone
Sulfamate
Sulfonamide

X

O
O
CH₂
O
NH

Y

O
CH₂
CH₂
NH
CH₂

n = 1

Sulfite
Sulfoxide

O
CH₂

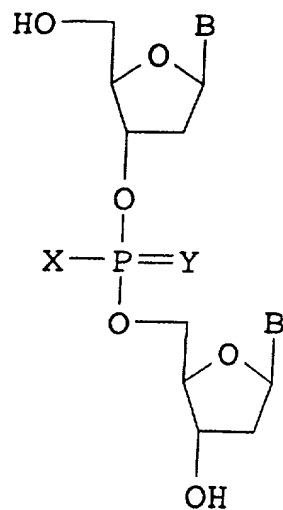
O
CH₂

n = 0

Sulfide

CH₂

CH₂



Phosphodiester
Phosphorothioate
Phosphorodithioate
Methylphosphonate
Phosphotriester
Phosphoramidate
Boranophosphate

X

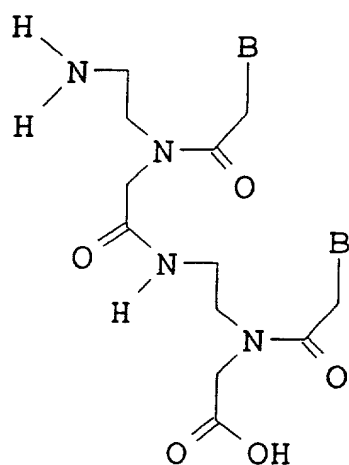
O⁻
S⁻
S⁻
CH₃
O-R
NH-R
BH₃

Y

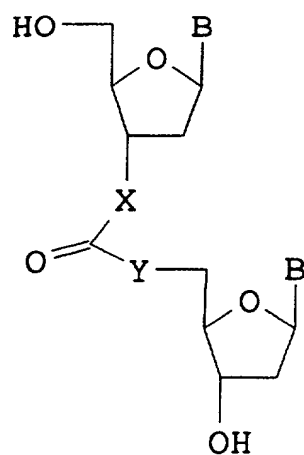
O
O
S
O
O
O
O

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Figure 3C



PNA dimer



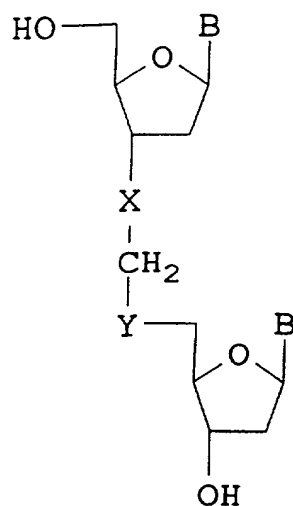
Carbonate
5' -N-carbamate

X
O
O

Y
O
NH

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Figure 3D

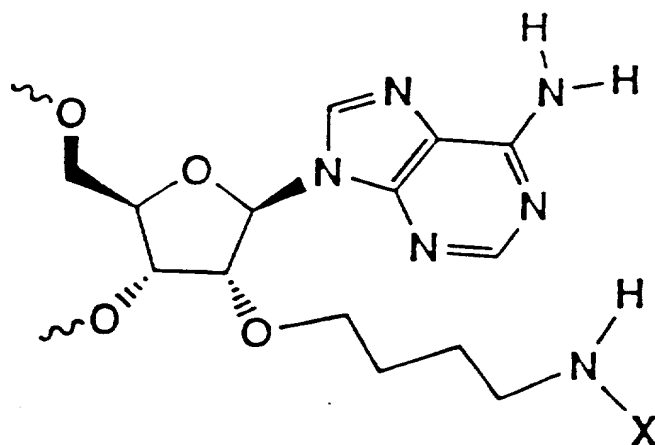


Formacetal
 5'-Thioether
 3'-Thioformacetal
 5'-Thioformacetal

<u>X</u>	<u>Y</u>
O	O
CH ₂	S
S	O
O	S

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Figure 4

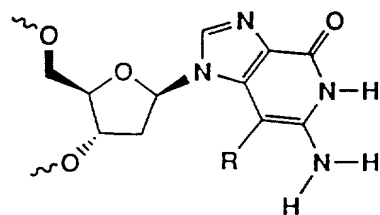


X = BIOTIN
= CHOLIC ACID
= FLUORESCEIN

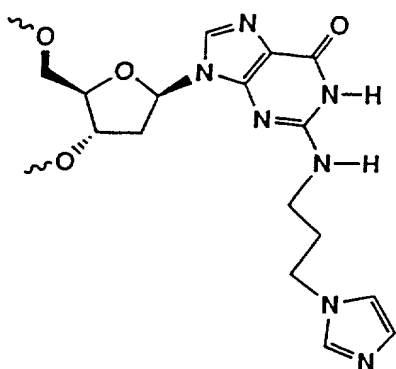
2'-O-(AMINOPENTYL) ADENINE
CONJUGATES

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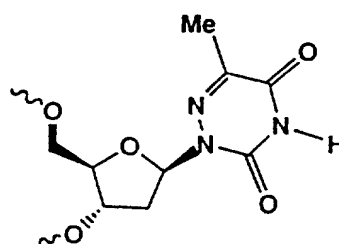
Figure 5A



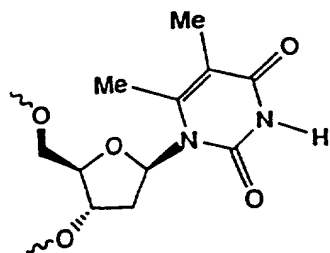
3-DEAZAGUANINES



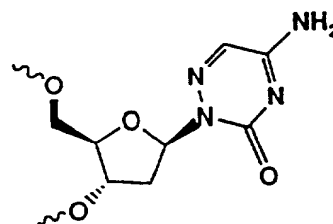
N2-IMIDAZOLYLPROPYL
GUANINE



6-AZATHYMIDINE



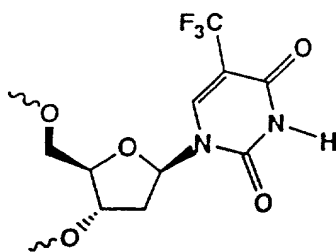
5,6-DIMETHYLTHYMIDINE



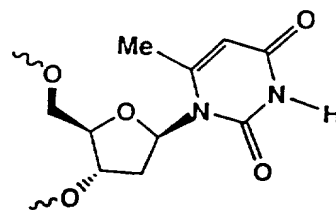
6-AZA-DEOXYCYTIDINE

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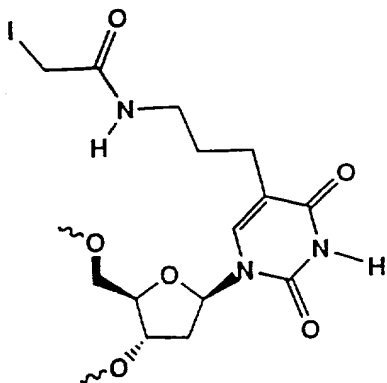
Figure 5B



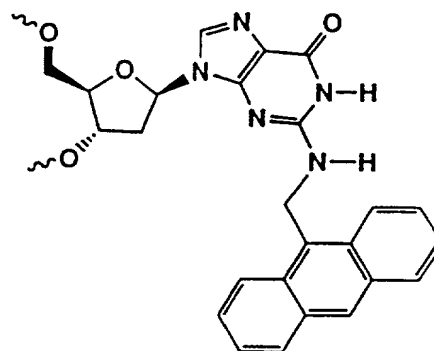
TRIFLUOROTHYMININE



6-METHYLTHYMININE

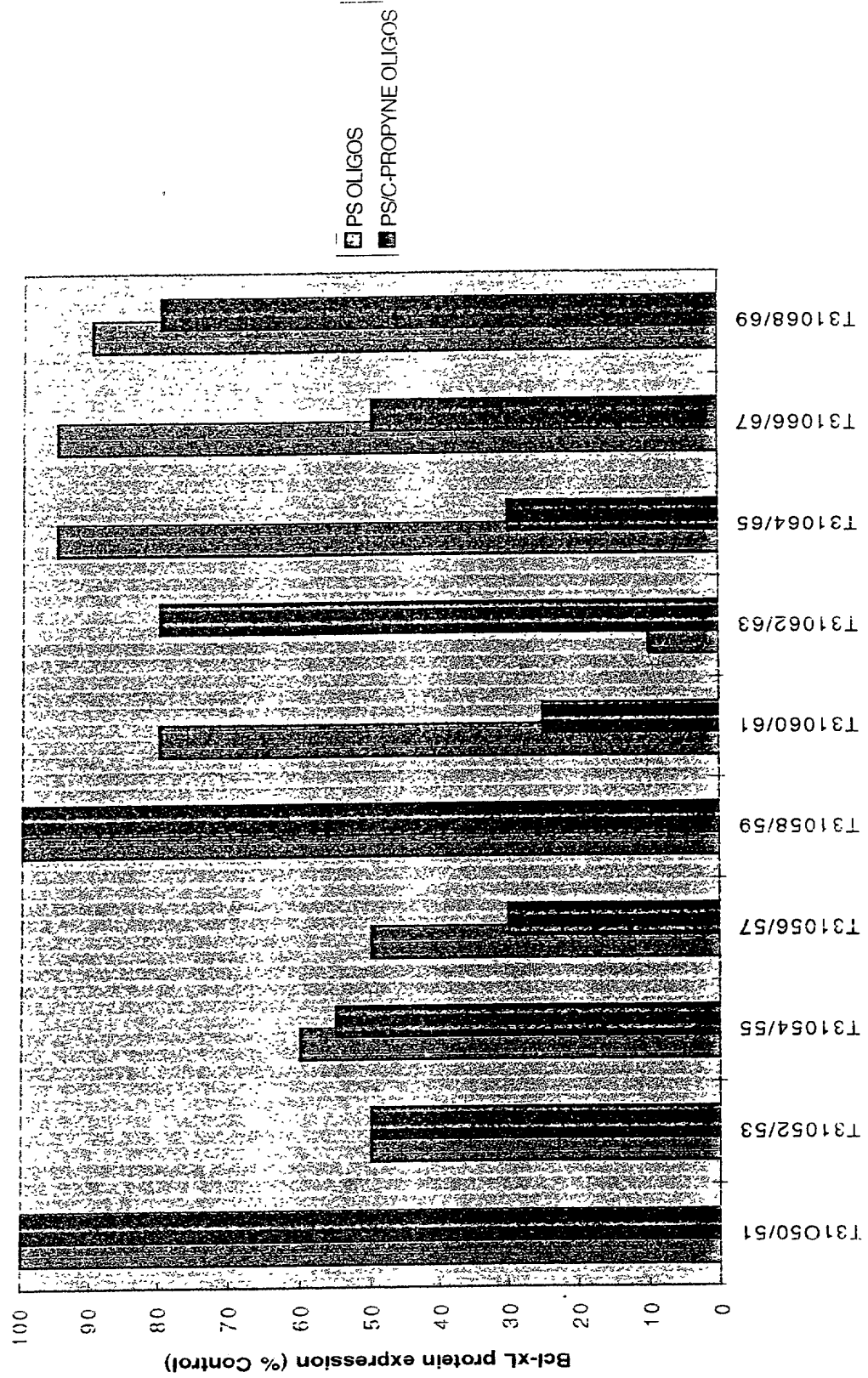


IDOACETAMIDOPROPYL URACIL



N2-ANTRACENYLMETHYL
GUANINE

FIGURE 6 Effect of 18-mer PS oligonucleotides on bcl-xL protein expression in LNCaP cells



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FIGURE 7

LNCaP cell line

